

MEDICINE TODAY

This department of California and Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to every member of the California, Nevada and Utah Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

A Common Surgical Error.—Where the integrity of the skin is threatened as a result of trauma or in surgical proceedings the most widely accepted treatment is the application of dry or moist heat. No error could be greater. No error is more common. Frequent calls to repair skin defects resulting from this misuse of heat has brought this so strongly to our attention that we feel comment thereon may be in order.

Three conditions give occasion for this erroneous use of heat. First in pedicle grafts which show cyanosis following transplantation. Second in the treatment of soreness or in attempting to hasten absorption after hypodermoclysis. Third and most frequently, in general practice, in attempting to treat large deep hematomata which lift the skin and subcutaneous fat from their normal fascial bed.

Pedicle grafts which are pallid are safe; but grafts which become blue are suffering from adequate arterial supply and embarrassed venous return. Congestion is the difficulty which threatens the success of the graft. Heat only adds to the congestion and assures the failure. A pedicle graft may be nearly black on the second day and yet result in a complete take with normal texture in the transplanted tissue if heat is avoided, the only ultimate injury being a desquamation of the epithelium which is rapidly replaced. The graft bandaged loosely under a thick dressing is maintained at body temperature which is after all the optimum for the growth of all body cells.

The frequency of burns after hypodermoclysis is common knowledge. Here again the blistering or sloughing are not actually a burn but an overloading of an already burdened venous circulation, for we have seen these injuries occur under very gentle heat.

The large hematomata seen in fat thighs and arms after deep contusion appear first as a tender swelling of the injured part. They are associated with a sharp rise in temperature of 100 to 102 degrees and are locally tender and warm. This temperature subsides through three days, followed on the fourth or fifth day by a secondary rise in temperature which subsides more slowly during the next week. With this secondary rise the physician finds the contused area hot, dusk in color with a slow return of blood after pressure is applied by the examining finger, and deep fluctuation is very definite. At this point aspiration of the now liquid hematoma under the strictest aseptic precautions and the application of a pressure bandage will save the overlying tissues almost without fail. Unfortunately, however, a diagnosis of abscess is almost invariably made and heat is applied with the result that the already

embarrassed venous circulation is overwhelmed by the induced congestion and a slough results which extends to the deep fascia. With separation of the slough a deep ulcer with undermined edges and secondary infection results which requires months of time or skin grafting to close.

This observation is the result of unpleasant personal experience and the experiences of others seen in consultation. It seems to us that we have here the common medical phenomenon of a time-honored practice followed blindly into unfortunate therapy in spite of the lessons we might have learned from repeated avoidable disasters.

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C hinese Immunologic Superiority.—Why is scarlet fever so rare in the tropics? Repeatedly introduced into tropical countries, it has caused only unimportant local epidemics, largely confined to newly arrived foreigners. Is the apparent immunity of native races due to some inherited racial peculiarity, an ancestral weeding-out of non-resistant human strains? Or is there something in the tropical environment that automatically immunizes natives?

One of the most important contributions to this suggested racial immunity has recently been published by Doctor Toyoda, of the Japanese Isolation Hospital, Darien, Manchuria.¹ Doctor Toyoda found in the racial mixture of his province a natural laboratory for the experimental and statistical study of relative racial susceptibility. In Manchuria there are two main racial groups, Chinese and Japanese, living under practically identical conditions. The two groups, however, are remarkably different in scarlet fever resistance. Tested with the Dick toxin, 40 per cent of the local Japanese show skin susceptibility, as contrasted with but 20 per cent among the Chinese. Three hundred and sixty-one local Japanese per 100,000 annually contract scarlet fever, while but eight local Chinese per 100,000 acquire the disease. It is evident from Doctor Toyoda's data that in his province at least racial inheritance is more important than environmental factors in determining susceptibility to scarlet fever, that the Chinese of Manchuria are immunologically superior to the Japanese so far as this disease is concerned.

Japanese scarlet fever susceptibility in Manchuria is approximately the same as the susceptibilities reported for the mixed populations of New York and Budapest.

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¹ Toyoda, T., et al., Does the Dick Reaction with Streptococcus Toxin Indicate Susceptibility to Scarlet Fever? *Jour. Infec. Dis.*, 46, 186, March 1930.